WHAT IS CLAIMED IS:

1. A method for selectively increasing the performance of a customer's data processing system, wherein the data processing system has a maximum performance level, the method comprising:

providing a first authorization key to the data processing system, the first authorization key allowing an initial performance level that is less than the maximum performance level of the data processing system;

receiving a request from the customer for an increase in performance of the data processing system; and

providing a second authorization key that increases the performance level of the data processing system above the initial performance level.

2. A method according to claim 1, wherein the second authorization key has an expiration date.

3. A method according to claim 3, wherein the data processing system returns to the initial performance level when the second authorization key expires.

4. A method according to claim 1, wherein the second authorization key has a maximum time of use, the maximum time of use specifying the maximum time that the data processing system can execute above the initial performance level.

5. A method according to claim 4, wherein the data processing system returns to the initial performance level when the maximum time of use specified by the second authorization key is reached.

6. A method for selectively changing the performance of a data processing system, wherein the data processing system includes one or more processors that can selectively operate at a performance level that is below a maximum performance level of the processor, the method comprising:

providing an authorization key to the data processing system, wherein the authorization key specifies a new performance level for at least one of the processors; and

increasing the performance level of at least one processor to the new performance level.

7. A method according to claim 6, further comprising the step of verifying the authorization key.

8. A method according to claim 7, wherein the data processing system has a corresponding serial number and the authorization key specifies a serial number, the verifying step comparing the serial number of the data processing system to the serial number of the authorization key.

9. A method according to claim 8, further comprising the step of preventing the increasing step if the serial number of the authorization key does not match the serial number of the data processing system.

10. A method according to claim 7, wherein the data processing system maintains a current date and the authorization key specifies an expiration date, the verifying step comparing the expiration date of the authorization key to the current date maintained by the data processing system to determine if the authorization key has expired.

11. A method according to claim 10, further comprising the step of preventing the increasing step if the authorization key has expired.

12. A method according to claim 10, further comprising the step of decreasing the performance level of the at least one processor designated by the authorization key to a previous performance level when the authorization key expires.

13. A method according to claim 7, wherein the authorization key specifies a maximum time of use, the verifying step determining if the time of increased performance level of the at least one processor exceeds the maximum time of use.

14. A method according to claim 13, further comprising the step of preventing the increasing step if the increase in performance level of the at least one processor has exceeded the maximum time of use.

15. A method according to claim 13, further comprising the step of decreasing the performance level of the at least one processor designated by the authorization key to a previous performance level when the time of increased performance level of the at least one processor exceeds the maximum time of use.

16. A method according to claim 6, wherein the providing and increasing steps are performed while the data processing system is in use.

17. A method according to claim 6, wherein the performance level of the at least one processor is increased under software control.

18. A method according to claim 17, wherein the performance level of the at least one processor is increased under the control of the operating system of the data processing system.

19. A method according to claim 18, wherein the operating system maintains a table that includes entries that identify the processors in the data processing system, and further identify the allowed performance level of each processor.

20. A method according to claim 19, wherein the performance level of selected processors is increased by changing the corresponding entries in the table to a new performance level.

21. A method according to claim 20, wherein the operating system detects the changes in the table, and changes the performance level of the corresponding processors to the new performance level.

22. A method according to claim 21, further comprising changing selected entries in the table so that the performance level of selected processors are returned to a previous performance level.

23. A method according to claim 6, wherein the authorization key is encrypted, and the authorization key is decrypted before use.

24. A method for selectively changing the performance of a data processing system, wherein the data processing system includes two or more processors and a limit is placed on the number of processors that are available for use, the method comprising:

providing an authorization key to the data processing system, wherein the authorization key specifies a new limit on the number of processors that are available for use; and

increasing the performance level of the data processing system by activating one or more of the processors that were previously unavailable for use.

25. A method according to claim 24, further comprising the step of verifying the use of the authorization key.

26. A method according to claim 25, wherein the data processing system has a corresponding serial number and the authorization key specifies a serial number, the verifying step includes comparing the serial number of the data processing system to the serial number of the authorization key.

27. A method according to claim 25, wherein the data processing system maintains a current date and the authorization key specifies an expiration date, the verifying step comparing the expiration date of the authorization key to the current date maintained by the data processing system to determine if the authorization key has expired.

28. A method according to claim 27, further comprising the step of preventing the increasing step if the authorization key has expired.

29. A method according to claim 27, further comprising the step of de-activating selected processors so that the number of active processors is less than or equal to the original limit of processors when the authorization key expires.

30. A method according to claim 25, wherein the authorization key specifies a maximum time of use, the verifying step determining if the time of the increased performance level of the data processing system exceeds the maximum time of use.

31. A method according to claim 30, further comprising the step of preventing the increasing step if the time of the increased performance level of the data processing system exceeds the maximum time of use.

32. A method according to claim 30, further comprising the step of de-activating enough processors so that the number of active processors is less than or equal to the original limit of processors when the time of use of the additional processors exceeds the maximum time of use.

33. A method according to claim 24, wherein the providing and increasing steps are performed while the data processing system is in use.

34. A method according to claim 24, wherein the one or more processors are activated under software control.

35. A method according to claim 34, wherein the one or more processors are activated by the operating system of the data processing system.

36. A method according to claim 35, wherein the operating system maintains a table that includes entries that identify the processors in the data processing system, and further identify which processors are available for use.

37. A method according to claim 36, wherein the increasing step changes selected entries in the table to indicate that one or more of the processors that were previously unavailable for use are now available for use.

38. A method according to claim 37, wherein the operating system detects the changes to the table, and ups the processors that are indicated as available for use that were previously unavailable for use.

39. A method according to claim 38, further comprising changing selected entries in the table so that selected processors that are available for use are de-activated and become unavailable for use to return to the original limit on the number of processors that are available for use.

40. A method according to claim 39, wherein the operating system detects the changes to the table, and downs the processors that are indicated as unavailable for use.

Add A7